

## ABSTRACT

A smart fluid storage container assembly and methods of using the container assembly. The container assembly includes features that minimize the risk of degradation of any fluid or other material contained in the container, provide for  
5 monitoring of the conditions the fluid has and is being subjected to, and provide for storage of identifying information and other data with the container itself. The information accompanying the container can be used to identify the contents of the container and/or the proper storage and use of the material contained within the container.